

High Voltage Medium Current Fast Recovery Diodes

Jingdao high voltage silicon rectifier diodes is made of high quality silicon wafer chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

FEATURES

- For surface mounted applications
- Avalanche characteristic.
- Glass Passivated Chip Junction
- Easy to pick and place
- High frequency, Fast recovery
- Medium current, low forward voltage.
- Lead free in comply with EU RoHS 2011/65/EU directives

APPLICATIONS

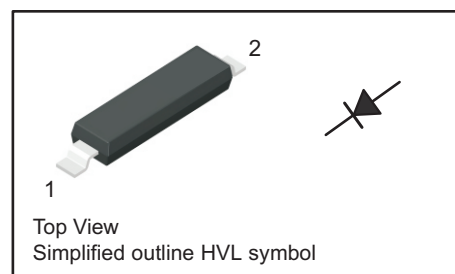
- High voltage multiplier circuit
- Electrostatic generator circuit .
- General purpose high voltage rectifier.
- X-ray power supply

MECHANICAL DATA

- Case: HVL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 1.27g / 0.0447oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbols	HV500F08K	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	8000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	500	mA
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Maximum Forward Voltage Drop at 500mA	V_F	18	V
Maximum Reverse Current @ V_{RRM} $T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$	I_R	2 50	μA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	150	ns
Operating and Storage Temperature Range	T_j, T_{stg}	-40 ~ +150	$^\circ\text{C}$

(1) Measured with $I_F=0.5I_R$; $I_R=I_{FAV}$; $I_{RR}=0.25I_R$



Fig.1 Forward Current Derating Curve

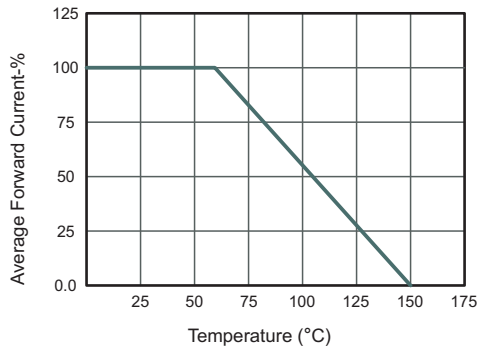
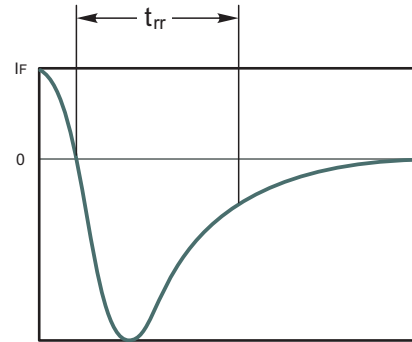
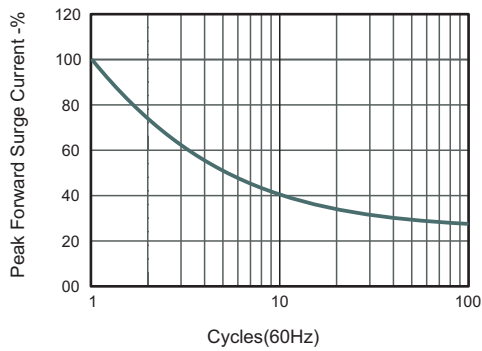


Fig.2 Reverse Recovery Measurement Waveform



Typical data capture points: $I_F = 0.5I_R$, I_R , $I_{RR} = 0.25I_R$
 I_R is typically the rated average forward current maximum ($I_{F(AVM)}$) of the D.U.T

Fig.3 Non-Repetitive Surge Current

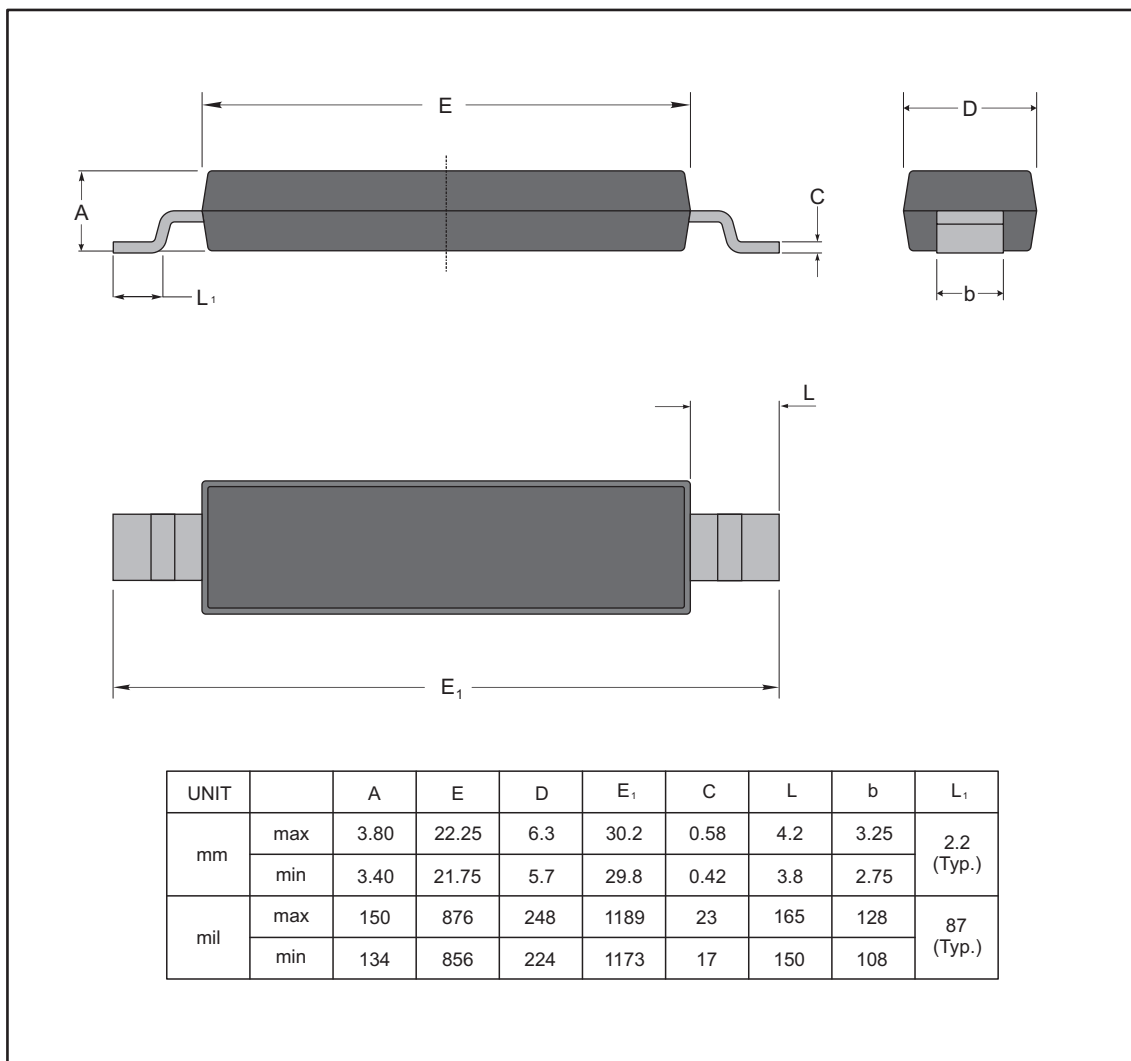




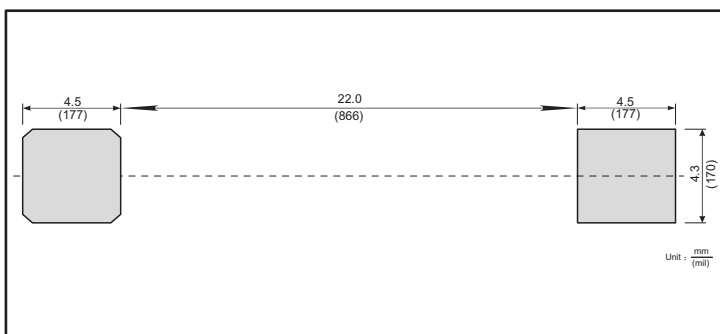
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

HVL



The recommended mounting pad size



Marking

Type number	Marking code
HV500F08K	F0508



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